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SequenceList US 235054.st25
SEQUENCE LISTING

<110> HIRAKAWA, Youko
NIKI, Hisae
OIKE, Shinsuke
TAGAWA, Toshiaki
HOSOKAWA, Saiko
YOSHIYAMA, Yoshiko

<120> Antibody recognizing antigen

<130> 235054

<150> PCT/JP2003/012732

<151> 2003-10-03

<150> JP 2002-291953

<151> 2002-10-04

<160> 22

<170> PatentIn version 3.1

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Ser Thr Arg Leu Arg Gly Ala Asp Tyr
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Lys Ser Ser Gln Ser Val Leu Tyr Asn Ser Asn Asn Lys Lys Tyr Leu
1 5 10 15

Ala

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Trp Ala Ser Thr Arg Glu Ser
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1 5

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Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Cys
20 25 30
Gly Phe Tyr Trp Asn Trp Ile Arg Gln His Pro Gly Lys Gly Leu Glu
35 40 45
Trp Ile Gly Tyr Ile Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60
Leu Lys Ser Arg Val Thr Ile Ser Leu Asp Thr Ser Lys Ser Gln Phe
65 70 75 80
Ser Leu Lys Leu Ser Ser Leu Thr Ala Ala Asp Thr Ala Val Tyr Tyr
85 90 95
Cys Ala Arg Ser Thr Arg Leu Arg Gly Ala Asp Tyr Trp Gly Gln Gly
100 105 110
Thr Met Val Thr Val Ser Ser
115

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Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
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Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Asn
20 25 30
Ser Asn Asn Lys Lys Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45
Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
50 55 60
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80
Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95
Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110
Lys Arg

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<210> 9
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<400> 9

Leu Val Trp Val Pro Ser Asp Lys
1 5

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Val Ser His Leu Leu Gly Ile Asn Val Thr Asp Phe Thr Arg Gly Ile
1 5 10 15

<210> 11
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Glu Gln Ala Asp Phe Ala Ile Glu Ala Leu Ala Lys
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Asp Val Asp Arg Ile Ile Gly Leu Asp Gln Val Ala Gly Met Ser Glu
1 5 10 15

Thr

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Thr Glu Leu Glu Asp Thr Leu Asp Ser Thr Ala Ala Gln Gln Glu
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SequenceList US 235054.st25

<213> Homo Sapiens

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Ala Leu Glu Ser Gln Leu Gln Asp Thr Gln Glu Leu
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<213> Homo Sapiens

<400> 15

Ser Met Glu Ala Glu Met Ile Gln Leu Gln Glu Glu Leu Ala Ala Ala
1 5 10 15

<210> 16

<211> 17

<212> PRT

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Arg Arg Leu Glu Ala Arg Ile Ala Gln Leu Glu Glu Glu Leu Glu Glu
1 5 10 15

Glu

<210> 17

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<212> PRT

<213> Homo Sapiens

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Met Ala Gln Gln Ala Ala Asp Lys Tyr Leu Tyr Val Asp Lys Asn Phe
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Ile Asn Asn Pro Leu Ala Gln Ala Asp Trp Ala Ala Lys Lys Leu Val
20 25 30

Trp Val Pro Ser Asp Lys Ser Gly Phe Glu Pro Ala Ser Leu Lys Glu
35 40 45

Glu Val Gly Glu Glu Ala Ile Val Glu Leu Val Glu Asn Gly Lys Lys
50 55 60

Val Lys Val Asn Lys Asp Asp Ile Gln Lys Met Asn Pro Pro Lys Phe
65 70 75 80

Ser Lys Val Glu Asp Met Ala Glu Leu Thr Cys Leu Asn Glu Ala Ser
85 90 95

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Val Leu His Asn Leu Lys Glu Arg Tyr Tyr Ser Gly Leu Ile Tyr Thr
100 105 110

Tyr Ser Gly Leu Phe Cys Val Val Ile Asn Pro Tyr Lys Asn Leu Pro
115 120 125

Ile Tyr Ser Glu Glu Ile Val Glu Met Tyr Lys Gly Lys Lys Arg His
130 135 140

Glu Met Pro Pro His Ile Tyr Ala Ile Thr Asp Thr Ala Tyr Arg Ser
145 150 155 160

Met Met Gln Asp Arg Glu Asp Gln Ser Ile Leu Cys Thr Gly Glu Ser
165 170 175

Gly Ala Gly Lys Thr Glu Asn Thr Lys Lys Val Ile Gln Tyr Leu Ala
180 185 190

Tyr Val Ala Ser Ser His Lys Ser Lys Lys Asp Gln Gly Glu Leu Glu
195 200 205

Arg Gln Leu Leu Gln Ala Asn Pro Ile Leu Glu Ala Phe Gly Asn Ala
210 215 220

Lys Thr Val Lys Asn Asp Asn Ser Ser Arg Phe Gly Lys Phe Ile Arg
225 230 235 240

Ile Asn Phe Asp Val Asn Gly Tyr Ile Val Gly Ala Asn Ile Glu Thr
245 250 255

Tyr Leu Leu Glu Lys Ser Arg Ala Ile Arg Gln Ala Lys Glu Glu Arg
260 265 270

Thr Phe His Ile Phe Tyr Tyr Leu Leu Ser Gly Ala Gly Glu His Leu
275 280 285

Lys Thr Asp Leu Leu Glu Pro Tyr Asn Lys Tyr Arg Phe Leu Ser
290 295 300

Asn Gly His Val Thr Ile Pro Gly Gln Gln Asp Lys Asp Met Phe Gln
305 310 315 320

Glu Thr Met Glu Ala Met Arg Ile Met Gly Ile Pro Glu Glu Glu Gln
325 330 335

Met Gly Leu Leu Arg Val Ile Ser Gly Val Leu Gln Leu Gly Asn Ile

SequenceList US 235054.st25
340 345 350

Val Phe Lys Lys Glu Arg Asn Thr Asp Gln Ala Ser Met Pro Asp Asn
355 360 365

Thr Ala Ala Gln Lys Val Ser His Leu Leu Gly Ile Asn Val Thr Asp
370 375 380

Phe Thr Arg Gly Ile Leu Thr Pro Arg Ile Lys Val Gly Arg Asp Tyr
385 390 395 400

Val Gln Lys Ala Gln Thr Lys Glu Gln Ala Asp Phe Ala Ile Glu Ala
405 410 415

Leu Ala Lys Ala Thr Tyr Glu Arg Met Phe Arg Trp Leu Val Leu Arg
420 425 430

Ile Asn Lys Ala Leu Asp Lys Thr Lys Arg Gln Gly Ala Ser Phe Ile
435 440 445

Gly Ile Leu Asp Ile Ala Gly Phe Glu Ile Phe Asp Leu Asn Ser Phe
450 455 460

Glu Gln Leu Cys Ile Asn Tyr Thr Asn Glu Lys Leu Gln Gln Leu Phe
465 470 475 480

Asn His Thr Met Phe Ile Leu Glu Gln Glu Glu Tyr Gln Arg Glu Gly
485 490 495

Ile Glu Trp Asn Phe Ile Asp Phe Gly Leu Asp Leu Gln Pro Cys Ile
500 505 510

Asp Leu Ile Glu Lys Pro Ala Gly Pro Pro Gly Ile Leu Ala Leu Leu
515 520 525

Asp Glu Glu Cys Trp Phe Pro Lys Ala Thr Asp Lys Ser Phe Val Glu
530 535 540

Lys Val Met Gln Glu Gln Gly Thr His Pro Lys Phe Gln Lys Pro Lys
545 550 555 560

Gln Leu Lys Asp Lys Ala Asp Phe Cys Ile Ile His Tyr Ala Gly Lys
565 570 575

Val Asp Tyr Lys Ala Asp Glu Trp Leu Met Lys Asn Met Asp Pro Leu
580 585 590

SequenceList US 235054.st25
Asn Asp Asn Ile Ala Thr Leu Leu His Gln Ser Ser Asp Lys Phe Val
595 600 605

Ser Glu Leu Trp Lys Asp Val Asp Arg Ile Ile Gly Leu Asp Gln Val
610 615 620

Ala Gly Met Ser Glu Thr Ala Leu Pro Gly Ala Phe Lys Thr Arg Lys
625 630 635 640

Gly Met Phe Arg Thr Val Gly Gln Leu Tyr Lys Glu Gln Leu Ala Lys
645 650 655

Leu Met Ala Thr Leu Arg Asn Thr Asn Pro Asn Phe Val Arg Cys Ile
660 665 670

Ile Pro Asn His Glu Lys Lys Ala Gly Lys Leu Asp Pro His Leu Val
675 680 685

Leu Asp Gln Leu Arg Cys Asn Gly Val Leu Glu Gly Ile Arg Ile Cys
690 695 700

Arg Gln Gly Phe Pro Asn Arg Val Val Phe Gln Glu Phe Arg Gln Arg
705 710 715 720

Tyr Glu Ile Leu Thr Pro Asn Ser Ile Pro Lys Gly Phe Met Asp Gly
725 730 735

Lys Gln Ala Cys Val Leu Met Ile Lys Ala Leu Glu Leu Asp Ser Asn
740 745 750

Leu Tyr Arg Ile Gly Gln Ser Lys Val Phe Phe Arg Ala Gly Val Leu
755 760 765

Ala His Leu Glu Glu Glu Arg Asp Leu Lys Ile Thr Asp Val Ile Ile
770 775 780

Gly Phe Gln Ala Cys Cys Arg Gly Tyr Leu Ala Arg Lys Ala Phe Ala
785 790 795 800

Lys Arg Gln Gln Gln Leu Thr Ala Met Lys Val Leu Gln Arg Asn Cys
805 810 815

Ala Ala Tyr Leu Lys Leu Arg Asn Trp Gln Trp Trp Arg Leu Phe Thr
820 825 830

Lys Val Lys Pro Leu Leu Gln Val Ser Arg Gln Glu Glu Met Met
835 840 845

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Ala Lys Glu Glu Glu Leu Val Lys Val Arg Glu Lys Gln Leu Ala Ala
850 855 860

Glu Asn Arg Leu Thr Glu Met Glu Thr Leu Gln Ser Gln Leu Met Ala
865 870 875 880

Glu Lys Leu Gln Leu Gln Glu Gln Leu Gln Ala Glu Thr Glu Leu Cys
885 890 895

Ala Glu Ala Glu Glu Leu Arg Ala Arg Leu Thr Ala Lys Lys Gln Glu
900 905 910

Leu Glu Glu Ile Cys His Asp Leu Glu Ala Arg Val Glu Glu Glu Glu
915 920 925

Glu Arg Cys Gln His Leu Gln Ala Glu Lys Lys Lys Met Gln Gln Asn
930 935 940

Ile Gln Glu Leu Glu Glu Gln Leu Glu Glu Glu Glu Ser Ala Arg Gln
945 950 955 960

Lys Leu Gln Leu Glu Lys Val Thr Thr Glu Ala Lys Leu Lys Lys Leu
965 970 975

Glu Glu Glu Gln Ile Ile Leu Glu Asp Gln Asn Cys Lys Leu Ala Lys
980 985 990

Glu Lys Lys Leu Leu Glu Asp Arg Ile Ala Glu Phe Thr Thr Asn Leu
995 1000 1005

Thr Glu Glu Glu Glu Lys Ser Lys Ser Leu Ala Lys Leu Lys Asn
1010 1015 1020

Lys His Glu Ala Met Ile Thr Asp Leu Glu Glu Arg Leu Arg Arg
1025 1030 1035

Glu Glu Lys Gln Arg Gln Glu Leu Glu Lys Thr Arg Arg Lys Leu
1040 1045 1050

Glu Gly Asp Ser Thr Asp Leu Ser Asp Gln Ile Ala Glu Leu Gln
1055 1060 1065

Ala Gln Ile Ala Glu Leu Lys Met Gln Leu Ala Lys Lys Glu Glu
1070 1075 1080

Glu Leu Gln Ala Ala Leu Ala Arg Val Glu Glu Glu Ala Ala Gln
1085 1090 1095

SequenceList US 235054.st25

Lys Asn Met Ala Leu Lys Lys 1100 Ile Arg Glu Leu Glu Ser Gln Ile
1105 1110

Ser Glu Leu Gln Glu Asp Leu Glu Ser Glu Arg Ala Ser Arg Asn
1115 1120 1125

Lys Ala Glu Lys Gln Lys Arg Asp Leu Gly Glu Glu Leu Glu Ala
1130 1135 1140

Leu Lys Thr Glu Leu Glu Asp Thr Leu Asp Ser Thr Ala Ala Gln
1145 1150 1155

Gln Glu Leu Arg Ser Lys Arg Glu Gln Glu Val Asn Ile Leu Lys
1160 1165 1170

Lys Thr Leu Glu Glu Ala Lys Thr His Glu Ala Gln Ile Gln
1175 1180 1185

Glu Met Arg Gln Lys His Ser Gln Ala Val Glu Glu Leu Ala Glu
1190 1195 1200

Gln Leu Glu Gln Thr Lys Arg Val Lys Ala Asn Leu Glu Lys Ala
1205 1210 1215

Lys Gln Thr Leu Glu Asn Glu Arg Gly Glu Leu Ala Asn Glu Val
1220 1225 1230

Lys Val Leu Leu Gln Gly Lys Gly Asp Ser Glu His Lys Arg Lys
1235 1240 1245

Lys Val Glu Ala Gln Leu Gln Glu Leu Gln Val Lys Phe Asn Glu
1250 1255 1260

Gly Glu Arg Val Arg Thr Glu Leu Ala Asp Lys Val Thr Lys Leu
1265 1270 1275

Gln Val Glu Leu Asp Asn Val Thr Gly Leu Leu Ser Gln Ser Asp
1280 1285 1290

Ser Lys Ser Ser Lys Leu Thr Lys Asp Phe Ser Ala Leu Glu Ser
1295 1300 1305

Gln Leu Gln Asp Thr Gln Glu Leu Leu Gln Glu Glu Asn Arg Gln
1310 1315 1320

Lys Leu Ser Leu Ser Thr Lys Leu Lys Gln Val Glu Asp Glu Lys

SequenceList US 235054.st25
1325 1330 1335

Asn Ser Phe Arg Glu Gln Leu Glu Glu Glu Glu Ala Lys His
1340 1345 1350

Asn Leu Glu Lys Gln Ile Ala Thr Leu His Ala Gln Val Ala Asp
1355 1360 1365

Met Lys Lys Lys Met Glu Asp Ser Val Gly Cys Leu Glu Thr Ala
1370 1375 1380

Glu Glu Val Lys Arg Lys Leu Gln Lys Asp Leu Glu Gly Leu Ser
1385 1390 1395

Gln Arg His Glu Glu Lys Val Ala Ala Tyr Asp Lys Leu Glu Lys
1400 1405 1410

Thr Lys Thr Arg Leu Gln Gln Glu Leu Asp Asp Leu Leu Val Asp
1415 1420 1425

Leu Asp His Gln Arg Gln Ser Ala Cys Asn Leu Glu Lys Lys Gln
1430 1435 1440

Lys Lys Phe Asp Gln Leu Leu Ala Glu Glu Lys Thr Ile Ser Ala
1445 1450 1455

Lys Tyr Ala Glu Glu Arg Asp Arg Ala Glu Ala Glu Ala Arg Glu
1460 1465 1470

Lys Glu Thr Lys Ala Leu Ser Leu Ala Arg Ala Leu Glu Glu Ala
1475 1480 1485

Met Glu Gln Lys Ala Glu Leu Glu Arg Leu Asn Lys Gln Phe Arg
1490 1495 1500

Thr Glu Met Glu Asp Leu Met Ser Ser Lys Asp Asp Val Gly Lys
1505 1510 1515

Ser Val His Glu Leu Glu Lys Ser Lys Arg Ala Leu Glu Gln Gln
1520 1525 1530

Val Glu Glu Met Lys Thr Gln Leu Glu Glu Leu Glu Asp Glu Leu
1535 1540 1545

Gln Ala Thr Glu Asp Ala Lys Leu Arg Leu Glu Val Asn Leu Gln
1550 1555 1560

SequenceList US 235054.st25

Ala Met Lys Ala Gln Phe Glu Arg Asp Leu Gln Gly Arg Asp Glu
1565 1570 1575

Gln Ser Glu Glu Lys Lys Lys Gln Leu Val Arg Gln Val Arg Glu
1580 1585 1590

Met Glu Ala Glu Leu Glu Asp Glu Arg Lys Gln Arg Ser Met Ala
1595 1600 1605

Val Ala Ala Arg Lys Lys Leu Glu Met Asp Leu Lys Asp Leu Glu
1610 1615 1620

Ala His Ile Asp Ser Ala Asn Lys Asn Arg Asp Glu Ala Ile Lys
1625 1630 1635

Gln Leu Arg Lys Leu Gln Ala Gln Met Lys Asp Cys Met Arg Glu
1640 1645 1650

Leu Asp Asp Thr Arg Ala Ser Arg Glu Glu Ile Leu Ala Gln Ala
1655 1660 1665

Lys Glu Asn Glu Lys Lys Leu Lys Ser Met Glu Ala Glu Met Ile
1670 1675 1680

Gln Leu Gln Glu Glu Leu Ala Ala Ala Glu Arg Ala Lys Arg Gln
1685 1690 1695

Ala Gln Gln Glu Arg Asp Glu Leu Ala Asp Glu Ile Ala Asn Ser
1700 1705 1710

Ser Gly Lys Gly Ala Leu Ala Leu Glu Glu Lys Arg Arg Leu Glu
1715 1720 1725

Ala Arg Ile Ala Gln Leu Glu Glu Glu Leu Glu Glu Glu Gln Gly
1730 1735 1740

Asn Thr Glu Leu Ile Asn Asp Arg Leu Lys Lys Ala Asn Leu Gln
1745 1750 1755

Ile Asp Gln Ile Asn Thr Asp Leu Asn Leu Glu Arg Ser His Ala
1760 1765 1770

Gln Lys Asn Glu Asn Ala Arg Gln Gln Leu Glu Arg Gln Asn Lys
1775 1780 1785

Glu Leu Lys Val Lys Leu Gln Glu Met Glu Gly Thr Val Lys Ser
1790 1795 1800

SequenceList US 235054.st25

Lys Tyr Lys Ala Ser Ile Thr Ala Leu Glu Ala Lys Ile Ala Gln
1805 1810 1815

Leu Glu Glu Gln Leu Asp Asn Glu Thr Lys Glu Arg Gln Ala Ala
1820 1825 1830

Cys Lys Gln Val Arg Arg Thr Glu Lys Lys Leu Lys Asp Val Leu
1835 1840 1845

Leu Gln Val Asp Asp Glu Arg Arg Asn Ala Glu Gln Tyr Lys Asp
1850 1855 1860

Gln Ala Asp Lys Ala Ser Thr Arg Leu Lys Gln Leu Lys Arg Gln
1865 1870 1875

Leu Glu Glu Ala Glu Glu Ala Gln Arg Ala Asn Ala Ser Arg
1880 1885 1890

Arg Lys Leu Gln Arg Glu Leu Glu Asp Ala Thr Glu Thr Ala Asp
1895 1900 1905

Ala Met Asn Arg Glu Val Ser Ser Leu Lys Asn Lys Leu Arg Arg
1910 1915 1920

Gly Asp Leu Pro Phe Val Val Pro Arg Arg Met Ala Arg Lys Gly
1925 1930 1935

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1940 1945 1950

Ala Glu Ala Lys Pro Ala Glu
1955 1960

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26

<210> 20

SequenceList US 235054.st25

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<400> 21

Glu Glu Leu Val Lys Val Arg Glu Lys Gln
5 10

<210> 22
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